



**US Army Corps  
of Engineers.**

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# Special Public Notice

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EFFECTIVE DATE:	October 12, 2010

The U.S. Army Corps of Engineers, Vicksburg District, announces the publication and one-year trial implementation period of the Eastern Mountains and Piedmont Interim Regional Supplement (Supplement) to the 1987 Wetland Delineation Manual (1987 Manual). This supplement was developed by wetland delineation experts from state and Federal agencies and academia with experience within this part of the country. It has been peer reviewed by an independent panel of scientists and practitioners and made available for 90-day public comment period. This interim document will be tested for one year prior to finalization; the one year period will be effective 30 days from the date of this public notice. The supplement will be field tested by interagency teams of state and Federal scientists to assess its clarity and ease of use, and to determine whether its use will result in any spatial changes in wetland delineation for Clean Water Act purposes. Comments on this supplement should be submitted to Ms. Karen Mulligan (CECW-CO), U.S. Army Corps of Engineers, 441 G Street, NW, Washington DC 20314-1000, or by email to [1987Manual@usace.army.mil](mailto:1987Manual@usace.army.mil).

The 1987 Manual, this Supplement, including data forms, as well as the independent peer review report and response document, the environmental assessment/FONSI prepared under NEPA, and copies of public comments are available on the Regulatory Homepage Website at [http://www.usace.army.mil/CECW/Pages/reg\\_supp.aspx](http://www.usace.army.mil/CECW/Pages/reg_supp.aspx). The testing protocol and questionnaire are attached to this public notice.

The following guidance is superseded by this Supplement, and is hereby rescinded by this public notice:

"Implementation of the 1987 Corps Wetland Delineation Manual," memorandum from John P. Elmore, dated 27 August 1991.

"Questions & Answers on the 1987 Manual," memorandum from John F. Studt, dated 7 October 1991.

"Clarification and Interpretation of the 1987 Manual," memorandum from Major General Arthur E. Williams, dated 6 March 1992.

"Revisions to National Plant Lists," memorandum from Michael L. Davis, dated 17 January 1996.

"NRCS Field Indicators of Hydric Soils," memorandum from John F. Studt, dated 21 March 1997.


Region and subregion boundaries are depicted in these documents as sharp lines. However, climatic conditions and the physical and biological characteristics of landscapes do not change abruptly at the boundaries. In reality, regions and subregions often grade into one another in broad transition zones that may be tens or hundreds of miles wide. The lists of wetland indicators presented in these regional supplements may differ between adjoining regions or subregions. In transitional areas, investigators must use experience and good judgment to select the supplement and indicators that are appropriate to the site based on its physical and biological characteristics. Wetland boundaries are not likely to differ between two supplements in transitional areas, but one supplement may provide more detailed treatment of certain problem situations encountered on the site. If in doubt about which supplement to use in a transitional area, apply both supplements and compare the results. For additional guidance, contact the appropriate Corps of Engineers District Regulatory Office. Contact information for District regulatory offices is available at the Corps Headquarters web site: [http://www.usace.army.mil/CECW/Pages/cecwo\\_reg.aspx](http://www.usace.army.mil/CECW/Pages/cecwo_reg.aspx).

Effective 30 days from the date of this public notice, the supplement data forms and indicators must be used for any data collection for wetland delineations. Field data collected for wetland delineations using the 1987 Manual prior to the effective date of this notice, but not yet submitted to the

appropriate Corps District for review and formal approval will be grandfathered. Documentation must be submitted to the appropriate Corps District which clearly shows the field data was collected prior to 30 days from the date of this notice in order to qualify for this grandfather provision. Once this documentation and the field data have been reviewed and approved by the appropriate Corps District, a written jurisdictional determination will be issued.

While we are confident the supplement will improve the accuracy of wetland delineation in the Eastern Mountains and Piedmont, anyone performing a wetland delineation during this interim period using the Supplement who believes it has resulted in a significantly different boundary line than the 1987 Manual may also complete the delineation using the 1987 Manual and submit both delineations. Enough points to adequately describe the representative plant communities, soils, and hydrology of the site(s) and to clearly document the difference in boundaries between the two methods must be included. Data recorded on both the existing 1992 data forms and the new supplement data forms, maps indicating the location of the field site and data collection points (upland and wetland), and a completed field evaluation questionnaire for each delineation must be submitted as part of the jurisdictional determination request to the appropriate Corps District Office. The District will make the final determination based on analysis of all the submitted information. This information will also be used in evaluation and potential modification of the supplement.

If you have any questions, please contact Mr. Charles R. Allred, Jr. by telephone at (601) 631-5546, or Mr. Robert Ulmer at (601) 631-5637.

  
for Michael F. McNair, R.F.  
Chief, Regulatory Branch  
Operations Division

Attachments

# **Field Testing Protocol**

## **Eastern Mountains and Piedmont Regional Supplement**

### **Organization of field testing teams:**

District Offices of the Corps of Engineers in the Eastern Mountains and Piedmont Region (see the list of District coordinators at the end of this document) will coordinate and oversee the field testing of the draft Regional Supplement. Field testing will be done in cooperation with regional NRCS, EPA, FWS, and other interested federal and state agencies and universities.

Field teams will consist of available interagency experts, with the constraint that each team must include an experienced botanist and a soil scientist to ensure the accuracy and reliability of the basic data.

If needed, the District coordinator will provide team members with an introduction to the Regional Supplement and will explain any new or unfamiliar indicators as necessary to avoid confusion over interpretation of the indicators.

### **Site Selection:**

Testing teams should focus on areas where permitting activity is high. There is no need to sample remote areas unless convenient opportunities arise.

Sample a number of typical wetland sites in each District or subregion, plus a selection of available "problem" situations. Problem situations should include, if possible, areas with unusual plant communities or soil types that may lack indicators, requiring use of Chapter 5 (Difficult Wetland Situations in the Eastern Mountains and Piedmont Region) to make the wetland determination.

### **Approach:**

The basic testing approach is to document at least 2 sampling points at each field site, one point in the wetland and one point in the adjacent upland, and determine the location of the wetland boundary between them. The team should collaborate to make the determination and documentation as accurate as possible. Follow these general steps:

1. Document each sampling point based on existing practice (i.e., 1987 Manual with existing guidance memos and existing local interpretation). For each point, completely fill out the old (1992) wetland determination data form. Locate the wetland boundary based on current practice.

2. Document each point using the new (Regional Supplement) data form. Locate the wetland boundary based on indicators and guidance given in the Regional Supplement.
3. If the two wetland boundaries are different, measure the distance between them.
4. Fill out the attached questionnaire (one copy per field site) to help explain any differences seen in the two methods.
5. For each field site sampled, submit the following items to the appropriate District coordinator:
  - a. Completed 1992 and Regional Supplement data forms for each sampling point
  - b. Sketch map of the site with sampling points, wetland boundaries, and any other important features indicated
  - c. One copy of the Field Evaluation Questionnaire
  - d. Optional brief report as necessary to explain test results

**List of Corps District Coordinators in the Eastern Mountains and Piedmont Region:**

Charles Allred, U.S. Army Engineer District, Vicksburg, MS, 601-631-5546  
Rodney Christensen, U.S. Army Engineer Kansas City District, Warsaw, MO, 816-389-3979  
James (Randy) Clark, U.S. Army Engineer District, Memphis, TN, 901-544-0735  
Andrew Commer, U.S. Army Engineer District, Tulsa, OK, 918-669-7616  
Christine Delorier, U.S. Army Engineer District, New York, NY, 518-266-6354  
Casey Ehorn, U.S. Army Engineer District, Mobile, AL, 205-290-9096  
Thomas Fischer, U.S. Army Engineer District, Savannah, GA, 229-430-8566  
Scott Hans, U.S. Army Engineer District, Pittsburgh, PA, 412-395-7154  
Michael Hayduk, U.S. Army Engineer District, Philadelphia, PA, 215-656-5822  
Amanda Jones, U.S. Army Engineer Wilmington District, Asheville, NC, 828-271-7980 x231  
Joseph Kassler, U.S. Army Engineer District, Buffalo, NY, 716-879-4432  
Kathleen Kuná, U.S. Army Engineer District, Nashville, TN, 615-369-7506  
Keith McMullen, U.S. Army Engineer District, St. Louis, MO, 314-331-8582  
Les Parker, U.S. Army Engineer District, Charleston, SC, 803-253-3904  
Lee Pittman, U.S. Army Engineer District, Huntington, WV, 304-399-5210  
Frank Plewa, U.S. Army Engineer District, Baltimore, MD, 717-249-2522  
Tim Scott, U.S. Army Engineer District, Little Rock, AR, 501-324-5295  
Ron Stouffer, U.S. Army Engineer Norfolk District, Dumfries, VA, 703-221-6967  
Sam Werner, U.S. Army Engineer District, Louisville, KY, 812-853-5631

## WETLAND DELINEATION FIELD EVALUATION QUESTIONNAIRE

This questionnaire should be completed for each boundary delineation performed. The assumption is that two communities were evaluated, one wetland (= "lower community") and one upland (= "upper community") so that a boundary between them could be identified. Fill in the blanks or check spaces as appropriate. Attach copies of the completed field data forms.

Site Name or Location \_\_\_\_\_ Date \_\_\_\_\_  
Evaluator(s) \_\_\_\_\_ Affiliation(s) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### General Site Characteristics

Is the site \_\_\_ typical or \_\_\_ problematic? *If problematic, explain:* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### Wetland (lower community)

Ecological System: \_\_\_ Saline Tidal \_\_\_ Fresh Tidal \_\_\_ Fresh Nontidal \_\_\_ Saline Nontidal  
Wetland Type: \_\_\_ Forested \_\_\_ Shrub \_\_\_ Emergent \_\_\_ Moss/Lichen \_\_\_ Farmed (hay or crop)  
\_\_\_ Other (specify \_\_\_\_\_)  
HGM Class: \_\_\_ Depression \_\_\_ Riverine \_\_\_ Fringe \_\_\_ Slope \_\_\_ Flat  
Vegetative Cover: \_\_\_ Dense \_\_\_ Evenly Mixed w/Nonvegetated \_\_\_ Sparse

#### Nonwetland (upper community)

Habitat Type: \_\_\_ Forest \_\_\_ Shrub \_\_\_ Meadow/Prairie \_\_\_ Moss/Lichen \_\_\_ Farmed  
\_\_\_ Other (specify: \_\_\_\_\_)

1. Was there a marked difference in the two plant communities? \_\_\_ Yes \_\_\_ No
2. Was there a gradual change in vegetation between the two communities creating a significant "transition zone" between? \_\_\_ Yes \_\_\_ No. If so, how wide was this transition zone? \_\_\_\_\_ feet
3. Was there an abrupt topographic change between the two communities? \_\_\_ Yes \_\_\_ No

### Boundary Determination

*Compare results from the two methods: (1) current practice using the 1987 Manual and guidance memos, and (2) 1987 Manual with the draft Regional Supplement.*

1. The wetland boundary was: \_\_\_ the same or \_\_\_ different.
2. If different, which method produced the boundary higher on the landscape?  
\_\_\_ Manual with current guidance or \_\_\_ Manual with Regional Supplement
3. What was the linear distance between the two boundaries? \_\_\_\_\_ feet
4. What type of indicator(s) were responsible for the difference in the boundaries?  
\_\_\_ Hydrophytic vegetation \_\_\_ Hydric soil \_\_\_ Wetland hydrology (*check all that apply*)

## Assessment of the Indicators

### Hydrophytic Vegetation

1. Did the lower community pass the current basic test for hydrophytic vegetation (i.e., >50% of the dominants had an indicator status of FAC or wetter, *excluding FAC-*)? ☐ Yes ☐ No
2. Did the lower community pass the "dominance test" in the Regional Supplement (i.e., >50% of the dominants were FAC or wetter, *counting FAC- as FAC*)? ☐ Yes ☐ No
3. What other indicators of hydrophytic vegetation were observed in the lower community?

a) List those from the Manual with current guidance: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b) List those from the Regional Supplement: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. Was the vegetation in the lower community a problematic wetland community type?  
☐ Yes ☐ No. *If so, briefly describe and explain how the problem was handled* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. Did the upper community pass the current basic test for hydrophytic vegetation (i.e., >50% of the dominants had an indicator status of FAC or wetter, *excluding FAC-*)? ☐ Yes ☐ No

6. Did the upper community pass the "dominance test" in the Regional Supplement (i.e., >50% of the dominants were FAC or wetter, *counting FAC- as FAC*)? ☐ Yes ☐ No

7. What other indicators of hydrophytic vegetation were observed in the upper community?

a) List those from the Manual with current guidance: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b) List those from the Regional Supplement: \_\_\_\_\_

\_\_\_\_\_

8. Did both methods reach the same conclusion regarding the presence of hydrophytic vegetation for the upper community? ☐ Yes ☐ No. *If not, briefly explain* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. Were the hydrophytic vegetation indicators in the Regional Supplement clearly described and easy to apply? ☐ Yes ☐ No. *If not, briefly explain* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Hydric Soil

1. Did both methods find indicators of hydric soil in the lower community? ☐ Yes ☐ No

a) List those from the Manual with current guidance: \_\_\_\_\_

\_\_\_\_\_

b) List those from the Regional Supplement: \_\_\_\_\_

\_\_\_\_\_

2. Did the lower community contain a problematic hydric soil (i.e., one that lacked indicators)?

☐ Yes ☐ No. *If so, briefly describe the problem and explain how it was handled:* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Did both methods reach the same conclusion regarding the presence of hydric soil in the upper community? ☐ Yes ☐ No. *If not, briefly explain* \_\_\_\_\_

a) List indicators from the Manual with current guidance: \_\_\_\_\_

\_\_\_\_\_

b) List indicators from the Regional Supplement: \_\_\_\_\_

\_\_\_\_\_

4. Were the hydric soil indicators in the Regional Supplement clearly described and easy to apply? ☐ Yes ☐ No. *If not, briefly explain* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Wetland Hydrology

1. Did both methods determine that wetland hydrology was present in the lower community?

(Requires 1 primary indicator or 2 secondary indicators.) ☐ Yes ☐ No

a) List indicators from the Manual with current guidance:

Primary: \_\_\_\_\_ Secondary: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b) List indicators from the Regional Supplement:

Primary: \_\_\_\_\_ Secondary: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



2. Did the lower community contain a problematic wetland hydrology situation (i.e., one that lacked indicators)?

☐ Yes ☐ No. *If so, briefly describe the problem and explain how it was handled:* \_\_\_\_\_

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3. Did both methods reach the same conclusion regarding wetland hydrology for the upper community? ☐ Yes ☐ No. *If not, briefly explain* \_\_\_\_\_

a) List indicators from the Manual with current guidance:

Primary: \_\_\_\_\_ Secondary: \_\_\_\_\_

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b) List indicators from the Regional Supplement:

Primary: \_\_\_\_\_ Secondary: \_\_\_\_\_

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4. Were the wetland hydrology indicators in the Regional Supplement clearly described and easy to apply? ☐ Yes ☐ No. *If not, briefly explain* \_\_\_\_\_

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#### **Comments on the Regional Supplement**

1. Were the indicators and procedures in the Supplement clear and easy to apply?

☐ Yes ☐ No. *If not, how could they be improved?* \_\_\_\_\_

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2. In your opinion, did the Regional Supplement make this wetland determination more defensible? ☐ Yes ☐ No. *Briefly explain* \_\_\_\_\_

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3. Based on your testing, do you want to recommend other indicators that should be considered for further evaluation? \_\_\_\_Yes \_\_\_\_No. *List by indicator type:*\_\_\_\_\_

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4. Was the Regional Supplement's field data form complete, understandable, and easy to fill out? \_\_\_\_Yes \_\_\_\_No. *If not, how could it be improved?* \_\_\_\_\_

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5. Any additional comments or suggestions? \_\_\_\_\_

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